

22 DEC 2004

10/519247

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 April 2004 (01.04.2004)

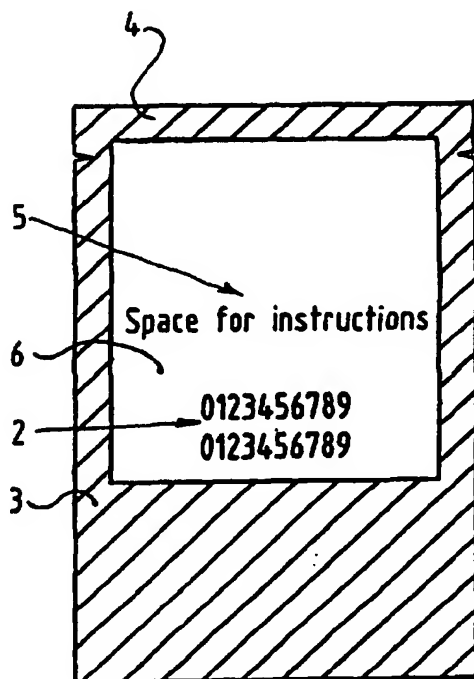
PCT

(10) International Publication Number
WO 2004/027722 A1

- (51) International Patent Classification⁷: G07F 7/02, B42D 15/08, 15/04
- (21) International Application Number: PCT/NL2003/000443
- (22) International Filing Date: 16 June 2003 (16.06.2003)
- (25) Filing Language: Dutch
- (26) Publication Language: English
- (30) Priority Data: 1020955 28 June 2002 (28.06.2002) NL
- (71) Applicant and
(72) Inventor: TAKENS, Jan, Willem [NL/NL]; Frits Kruit-
straat 4, NL-1742 SZ Schagen (NL).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (74) Agent: HOOIVELD, Arjen, Jan, Winfried; Arnold & Siedsma, Sweelinckplein 1, NL-2517 GK The Hague (NL).
- Published:
— with international search report

[Continued on next page]

(54) Title: VALUE CARRIER FOR PREPAID VALUE UNITS



(57) Abstract: A value carrier for prepaid value units, which value carrier comprises at least one information area on which visually readable information representing a code for prepaid value units is present, a special feature being the fact that the value carrier is sealed in an envelope. In a preferred embodiment, the envelope comprises at least two plastic foils, which are sealed together along a circumferential edge of the value carrier.

WO 2004/027722 A1

WO 2004/027722 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/027722

PCT/NL2003/000443

VALUE CARRIER FOR PREPAID VALUE UNITS

- 5 The invention relates to a value carrier for prepaid value units, which value carrier comprises at least one information area on which visually readable information representing a code for prepaid value units is present. A practical embodiment of such a value carrier is a so-called "prepaid
- 10 card". Such a "prepaid card" is for example a commercially freely available telephone card, in which case a prepaid value of a mobile telephone can be recharged by presenting the code to a relevant telephone company by telephone.
- 15 Such a value carrier in the form of a "prepaid telephone card" is known from European patent publication No. 0 896 296 (Winter Wertdruck GmbH). Said known value carrier is a plastic card the size of a credit card, on which an opaque scratch-off coating is provided on an underlying label of a
- 20 transparent material that is glued or sealed (German: "aufgesiegelt") on the information area. A buyer of said known value carrier can read the code (through the transparent label) with the naked eye by scratching off the coating with a nail. Fraudulent attempts to remove the label
- 25 to find out the code in this way will result in the label being irreversibly torn or damaged, so that any fraud will be clearly distinguishable from the outside. The structure used is a "sandwich structure", therefore, consisting of the scratch-off coating and the label, which provides protection
- 30 against fraud.

British patent No. 2,252,270 (Wren-Hilton) likewise describes

a "prepaid telephone card" carrying visible and invisible codes that have been placed thereon. A buyer of said card can recharge his prepaid value by presenting both codes to his telephone company by telephone. The invisible code has been
5 rendered invisible by covering the code with an opaque scratch-off coating or with an opaque adhesive label, which permanently marks or discolours when bent or removed. As a result, a fraudulent attempt to find out the code will also be clearly distinguishable from the outside, therefore.

10

One drawback of a value carrier as known from European patent publication No. 0 896 296 (Winter Wertdruck GmbH), but also of the value carrier described in the aforesaid British patent specification, is that it comprises a complex anti-
15 fraud construction, that its manufacture involves a complex manufacturing process, which renders the value carrier relatively costly and thus less attractive from an economic viewpoint.

20 The object of the invention is to overcome the drawbacks of the prior art, and in particular to provide a "prepaid telephone value carrier" comprising a simple anti-fraud construction.

25 According to the invention, a value carrier of the kind referred to in the introduction is characterized in that the value carrier is sealed in an envelope. The envelope may be made of plastic material or of paper/cardboard coated with a plastic. It is noted that the term paper is used for lighter
30 types of paper, whilst the term cardboard is used for heavier qualities. Within the framework of the invention no limitation is intended as regards the type of material when

terms such as paper, cardboard and thickness are used. Preferably, the envelope comprises at least two plastic foils, which are sealed together along a circumferential edge of the value carrier, so that a plastic seal (forming a mechanical joint) is formed along said circumferential edge. In this way an inexpensive, fraud-proof value carrier is obtained, since every attempt at fraud will leave traces in the plastic seal that can be clearly distinguished with the naked eye. After all, removal of the value carrier from the envelope of for the purpose of finding out the code will invariably result in the envelope or the plastic seal being irreversibly deformed, in particular torn or damaged. An important aspect of the invention, therefore, is that the information area on which the code is provided does not require any special anti-fraud measures itself. Preferably, the plastic seal comprises a local weakening, in particular a small notch, so that the envelope can easily be opened along said weakening for the purpose of removing the value carrier therefrom. Instead of using an envelope consisting of two separate plastic foils, it is also possible, of course, to use an envelope made of a folded (in two, for example) plastic foil, wherein foil parts are sealed together along a circumferential edge of the value carrier.

In one preferred embodiment of a value carrier according to the invention, the value carrier is sealed in an opaque envelope. In that case the code will not be visible until the value carrier has been removed from the envelope. In another preferred variants, the value carrier is sealed in a transparent envelope, and the information area is covered with an opaque material. Such a cover may be an opaque paper strip for that has been affixed to the information area,

which strip must be removed from the value carrier by a buyer in order to find out the code. The adhesive may not damage the code in any way, of course.

5 It is noted that the present value carrier may be in the form of a "prepaid card", in particular a "prepaid telephone card". In another preferred embodiment, the value carrier is not a rigid "prepaid card", but a flexible sheet that functions as a "prepaid value carrier". Said flexible sheet
10 is preferably a sheet of paper, which may or may not be folded, on which the code is present. The sheet of paper carrying the code printed thereon is sealed in a flexible plastic envelope in a manner similar to the manner in which refreshment tissues (commercially known as "towelettes",
15 which are frequently used in aeroplanes) are packaged in a flexible plastic envelope. In addition to the code, instructions for use may be printed on the sheet of paper, which may or may not be folded, possibly together with commercial information. The flexible sheet, in particular the
20 sheet of paper, is pre-eminently suitable for use as a "prepaid telephone value carrier".

The invention also relates to a method for manufacturing a value carrier according to the invention, which method is
25 characterized in that

- at least two plastic foils are supplied and sealed together along a circumferential edge of the value carrier, or
30
- a folded plastic foil is supplied, and the foil parts are sealed together along a circumferential edge of the

value carrier.

The invention will be explained in more detail hereinafter with reference to a drawing, in which Figures 1, 2 and 3 are
5 schematic top plan views of a value carrier according to the invention that is present in an envelope.

Figures 1 and 2 show a flexible plastic envelope containing a value carrier in the form of a "prepaid telephone card",
10 which value carrier is an elongated (Figure 1) or round (Figure 2) paper/cardboard strip 1 provided with a code 2. The surface of the value carrier/strip 1 constitutes the information area in this embodiment. The code 2 represents prepaid "telephone call timing units", e.g. to the amount of
15 10 euros, 20 euros etc., so that a prepaid value can be recharged accordingly upon presentation of the code 2 to a relevant telephone company.

The strip 1 is enclosed in an envelope 4 of an opaque
20 plastic, for example a laminate of PET/PE or Polyester/PE, with the foil of the envelope 4 being sealed (i.e. melted together) along a circumferential edge of the strip 1. A plastic seal 3 is present along the circumferential edge of the strip 1, therefore, which seal will deform irreversibly
25 upon removal of the strip 1 from the envelope 4 for reading the code 2. The envelope 4 may consist of two foils or a foil that has been folded in two.

The envelope 4 may also contain additional information 5, for
30 example commercial information, instructions for use, a gadget and the like, which information will be separately sealed therein, however.

Figure 3 relates to another preferred variant, in which a folded sheet of paper 6 carrying the code 2 that is printed thereon and any additional information 5 (e.g. instructions for use) is sealed (i.e. melted together) in a flexible plastic envelope 4. The sheet of paper 6 thus forms the value carrier in this case, which sheet of paper 6 is surrounded by the plastic seal 3 along its circumferential edge. Also in this case the envelope 4, which is opaque, may consist of two foils or of a foil that has been folded in two, as already explained above. Recharging of the prepaid value takes place by presenting the code 2 to the telephone company in question, to which end the sheet of paper 6 must be removed from the envelope 4. The plastic seal 3 will deform irreversibly when this is done.

15

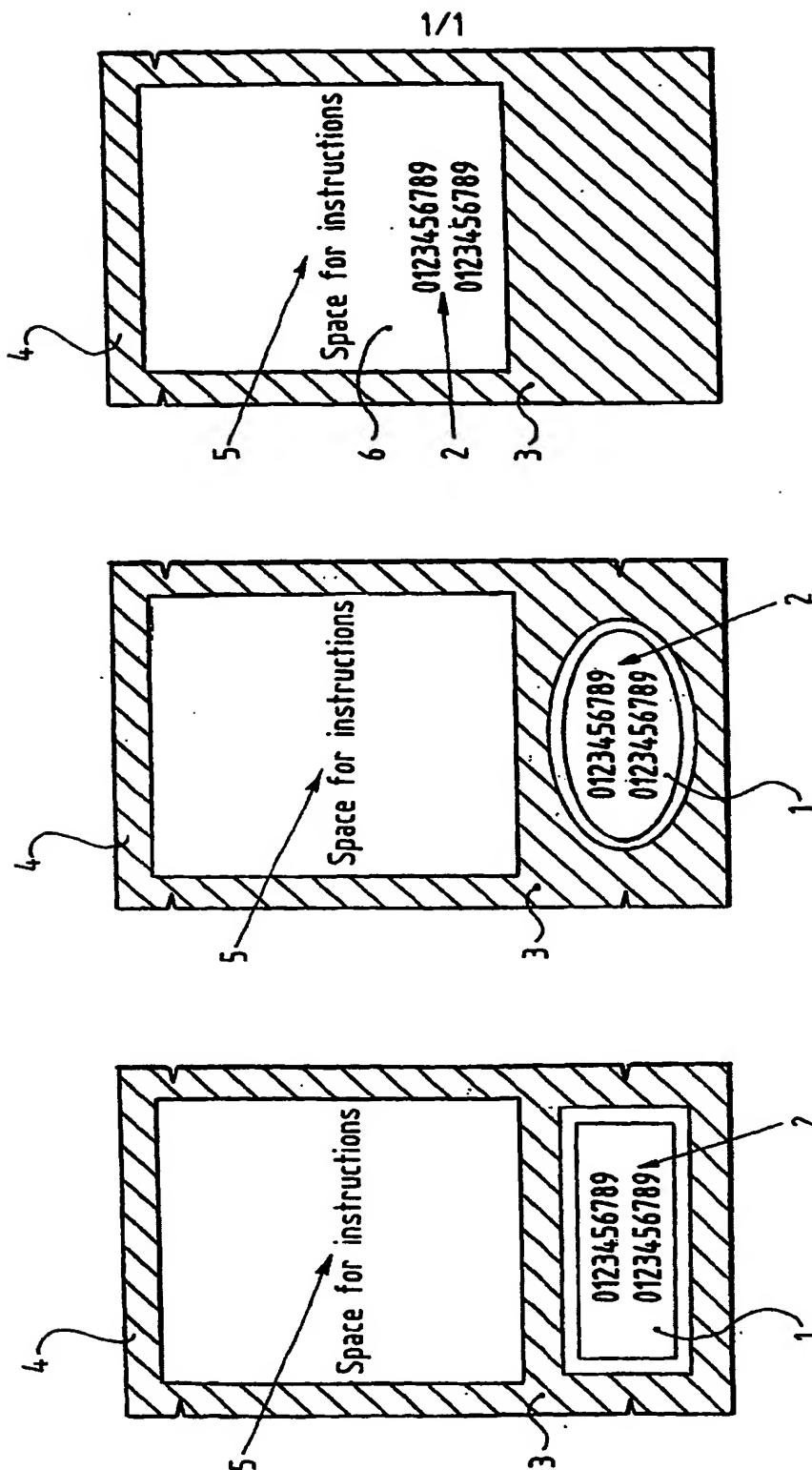
It is noted that the invention is not limited to the embodiments as shown herein, but that it also extends to other variants that fall within the scope of the appended claims.

CLAIMS

1. A value carrier for prepaid value units, which value carrier comprises at least one information area on which
5 visually readable information representing a code for prepaid value units is present, characterized in that the value carrier is sealed in an envelope.
2. A value carrier according to claim 1, wherein the
10 envelope is made of plastic material.
3. A value carrier according to claim 1, wherein the envelope is made of paper/cardboard coated with a plastic.
15
4. A value carrier according to claim 1 or 2, wherein the envelope comprises at least two plastic foils, which are sealed together along a circumferential edge of the value carrier.
20
5. A value carrier according to claim 1 or 2, wherein the envelope comprises a folded plastic foil, and wherein foil parts are sealed together along a circumferential edge of the value carrier.
25
6. A value carrier according to any one of the preceding claims 1 - 5, wherein the value carrier is sealed in an opaque envelope.
- 30 7. A value carrier according to any one of the preceding claims 1 - 5, wherein the value carrier is sealed in a transparent envelope, and wherein the information area

is covered with an opaque material.

8. A value carrier according to any one of the preceding claims 1 - 7, wherein said value carrier is comprised of a flexible sheet, preferably a sheet of paper.
9. A value carrier according to claim 8, wherein the flexible sheet is folded.
10. A method for manufacturing a value carrier according to any one of the preceding claims 1 - 9, characterized in that
- at least two plastic foils are supplied and sealed together along a circumferential edge of the value carrier, or
 - a folded plastic foil is supplied and the foil parts are sealed together along a circumferential edge of the value carrier.

FIG. 3FIG. 2FIG. 1

INTERNATIONAL SEARCH REPORT

Application No

PCT/NL 03/00443

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G07F7/02 B42D15/08 B42D15/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G07F B42D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 5 777 305 A (M. BROOKS SMITH) 7 July 1998 (1998-07-07) abstract; claims; figures 1-4	1,2,4,6, 8 3,7,10
X A	DE 197 16 068 A (GIESECKE & DEVRIENT) 22 October 1998 (1998-10-22) abstract; claims 15-18; figures 2A-3 column 4, line 8 -column 5, line 33	1,2,4,5, 8,9 3,6,7,10
X A	US 5 667 247 A (E.D. RAMSBURG) 16 September 1997 (1997-09-16) abstract; claims; figures	1,7 3,5,10
X A	US 5 427 832 A (A.G. LONGTIN) 27 June 1995 (1995-06-27) the whole document	1,2,4,6, 8,10 3,5,7
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

* & * document member of the same patent family

Date of the actual completion of the international search

18 September 2003

Date of mailing of the international search report

26/09/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

David, J

INTERNATIONAL SEARCH REPORT

Application No
PCT/NL 03/00443

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2 790 733 A (GEMPLUS) 15 September 2000 (2000-09-15) -----	
A	US 5 029 901 A (M. DOTSON) 9 July 1991 (1991-07-09) -----	

INTERNATIONAL SEARCH REPORT

Application No
PCT/NL 03/00443

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5777305	A	07-07-1998	NONE	
DE 19716068	A	22-10-1998	DE 19716068 A1	22-10-1998
			AT 213856 T	15-03-2002
			AU 7642198 A	13-11-1998
			DE 59803197 D1	04-04-2002
			WO 9848388 A2	29-10-1998
			EP 0976113 A2	02-02-2000
US 5667247	A	16-09-1997	AU 704136 B2	15-04-1999
			AU 4053495 A	19-12-1996
			CA 2162790 A1	07-12-1996
			NZ 280533 A	19-12-1997
US 5427832	A	27-06-1995	AU 682216 B2	25-09-1997
			AU 7741594 A	01-06-1995
			CA 2129715 A1	24-05-1995
FR 2790733	A	15-09-2000	FR 2790733 A1	15-09-2000
			AU 3172300 A	04-10-2000
			WO 0054986 A1	21-09-2000
US 5029901	A	09-07-1991	NONE	